

Title (en)
BULK-PROCESSED, ENHANCED FIGURE-OF-MERIT THERMOELECTRIC MATERIALS

Title (de)
MASSENVERARBEITETE WÄRMEELEKTRISCHE MATERIALIEN MIT ERHÖHTER LEISTUNGSZAHL

Title (fr)
MATÉRIAU THERMOÉLECTRIQUE TRAITÉ DANS LA MASSE À FACTEUR DE MÉRITE AMÉLIORÉ

Publication
EP 2359417 A4 20140319 (EN)

Application
EP 09837821 A 20091207

Priority
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• US 13927008 P 20081219

Abstract (en)
[origin: WO2010080279A2] The invention is a bulk-processed thermoelectric material and a method for fabrication. The material measures at least 30 microns in each dimension and has a figure of merit (ZT) greater than 1.0 at any temperature less than 200°C. The material comprises at least two constituents; a host phase and a dispersed second phase. The host phase is a semiconductor or semimetal and the dispersed phase of the bulk-processed material is comprised of a plurality of inclusions. The material has a substantially coherent interface between the host phase and the dispersed phase in at least one crystallographic direction.

IPC 8 full level
C04B 35/457 (2006.01); **C04B 35/653** (2006.01); **H01L 35/16** (2006.01); **H01L 35/26** (2006.01)

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Citation (search report)
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US 2009066959 W 20091207; CN 200980151017 A 20091207; EP 09837821 A 20091207; US 200913139744 A 20091207